

ABSTRACT OF THE DISCLOSURE

Machine for use in manufacturing a fibrous material web and a method of manufacturing the fibrous material web. The machine includes at least one electrostatic air boundary layer swirler arranged near a moving surface. The moving surface includes at least one of the fibrous material web, a belt, a roll, a felt, and a surface which supports the fibrous material web. The at least one electrostatic air boundary layer swirler includes at least one charging electrode and at least one counterelectrode. At least one device for moistening is arranged near the at least one electrostatic air boundary layer swirler. The at least one electrostatic air boundary layer swirler is adapted to at least one of at least partially remove a laminar air boundary layer formed on the moving surface, and at least partially disturb a laminar air boundary layer formed on the moving surface. The method includes subjecting the moving surface to a plasma current or a plasma stream and at least partially removing a laminar air boundary layer formed on the moving surface.